Attorney's Docket No.: 14564-006002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patentee : Trumpf Photonics, Inc.

Patent No. : 5,818,860 Application No. : 08/757,883

Issue Date : October 6, 1998 Filing Date : November 27, 1996

Title : HIGH POWER SEMICONDUCTOR LASER DIODE

Commissioner for Patents Washington, D.C. 20231

DECLARATION PURSUANT TO 37 C.F.R. §1.175

We, Dmitri Zalmanovich Garbuzov, Joseph Hy Abeles, and John Charles Connolly, declare that we believe we are the original and first inventors of the subject matter that is described and claimed in United States Patent No. 5,818,860 (the "'860 patent") for which we solicit a reissue patent; that we have reviewed and understand the contents of the enclosed reissue application, including its specification and claims; that we acknowledge the duty to disclose all information of which we are aware that is material to the examination of this reissue application in accordance with 37 CFR §1.56(a); that the '860 patent is partly inoperative by reason of claiming more than we had the right to claim; and that the inoperativeness is a result of error that arose inadvertently and without deceptive intention.

The errors that are the basis for this reissue application, and the resulting partial inoperativeness of the '860 patent, arose without deceptive intention and can be summarized as follows. After issuance of the '860 patent, we realized that several references, which were not part of the file wrapper, may be material to the validity of at least some of the claims of the '860 patent. We believe it was an error that these references were not considered by the patent Office during prosecution of the application that matured into the '860 patent.

Issue Date: October 6, 1998

Page: 2

Please address communications to:

J. Peter Fasse Fish & Richardson P.C. 225 Franklin Street Boston, MA 02110-2804

Please address all telephone calls to:

J. Peter Fasse

Telephone: 617 542-5070

We declare that all statement made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this reissue application or any patents issued thereon.

Full name of inventor: DMITRI ZALMANOVICH GARBUZOV
Inventor's signature: Dmitri Zalmanovich barhezov
Date: 1-14-2004
Citizen of: United States of America
Residence: 19 Fleming Way, Princeton, New Jersey 08540, USA
Post Office Address: 19 Fleming Way, Princeton, New Jersey 08540, USA

Issue Date: October 6, 1998

Page: 3

Full name of inventor: JOSEPH HY ABELES

Date: February 2, 2004

Citizen of: United States of America

Residence: 42 Cedar Lane, Apt. D, Highland Park, NJ 08904____

3 MUSKET COURT, EAST BRUNSWICK, NJ 08816

Post Office Address: 42 Cedar Lane, Apt. D, Highland Park, NJ-08904_

3 MUSKET COURT, EAST BRUNSWICK, NJ 08816

Issue Date: October 6, 1998

Page: 4

Full name of inventor: JOHN CHARLES CONNOLLY

Inventor's signature:

Date:

///2/200 3

Citizen of: United States of America

Residence: 5 Wright Court, Clarksburg, NJ 08510

Post Office Address: 5 Wright Court, Clarksburg, NJ 08510

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Attorney's Docket No.: 14564-006002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patentee : Trumpf Photonics, Inc.

Patent No. : 5,818,860 Application No. : 08/757,883

Issue Date : October 6, 1998 Filing Date : November 27, 1996

Title : HIGH POWER SEMICONDUCTOR LASER DIODE

Commissioner for Patents Washington, D.C. 20231

POWER OF ATTORNEY BY ASSIGNEE AND ELECTION OF ASSIGNEE TO CONDUCT PROSECUTION TO EXCLUSION OF INVENTORS

The undersigned, as authorized representative of the assignee of the entire right, title and interest in the above-identified application, hereby appoints

Mark R.W. Bellermann, Reg. No. 47,419; James Babineau, Reg. No. 42,276; John F. Hayden, Reg. No. 37,640; J. Peter Fasse, Reg. No. 32,983, and Timothy A. French, Reg. No. 30,175.

as its attorney or agent to prosecute the reissue application and to transact all business in the Patent and Trademark Office connected with the reissue application with full powers of substitution and revocation, the appointment to be to the exclusion of the inventors and their attorney(s) in accordance with the provisions of 37 CFR §3.71 *et seq.* of the Patent Office Rules of Practice.

Ownership is in the assignee by virtue of an assignment from Dmitri Zalmanovich Garbuzov, Joseph Hy Abeles, and John Charles Connolly, to DAVID SARNOFF RESEARCH CENTER, INC. recorded at Reel 8348, Frame 0547, and an assignment from SARNOFF CORPORATION to PRINCETON LIGHTWAVE, INC., recorded at Reel 012211, Frame 0112, and an assignment from PRINCETON LIGHTWAVE, INC. to TRUMPF PHOTONICS recorded at Reel 13515, Frame 0533, (copy enclosed). The documents evidencing ownership have been reviewed and to the best of the assignee's knowledge and belief, title is in the assignee.

Issue Date: October 6, 1998

Page: 2

Please direct all communications regarding the application to the attorney at the address and telephone numbers indicated below.

J. Peter Fasse

Fish & Richardson P.C.

225 Franklin Street

Boston, MA 02110-2804

Telephone: 617 542-5070 Facsimile: 617 542-8906

Signature:_

Typed name: Holger Schlueter

Title: Vice President & General Manager

Assignee: Trumpf Photonics, Inc.

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Attorney's Docket No.: 14564-006002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patentee

: Trumpf Photonics, Inc.

Patent No.

: 5,818,860

Application No.

: 08/757,883

Issue Date Filing Date : October 6, 1998 : November 27, 1996

Title

: HIGH POWER SEMICONDUCTOR LASER DIODE

Commissioner for Patents Washington, D.C. 20231

CONSENT OF ASSIGNEE AND OFFER TO SURRENDER

The undersigned, Trumpf Photonics, Inc., being assignee of all right, title and interest in and to the above-referenced U.S. Patent No. 5,818,860 by virtue of an assignment from Dmitri Zalmanovich Garbuzov, Joseph Hy Abeles, and John Charles Connolly, to DAVID SARNOFF RESEARCH CENTER, INC., recorded at Reel 8348, Frame 0547, and an assignment from SARNOFF CORPORATION to PRINCETON LIGHTWAVE, INC., recorded at Reel 012211, Frame 0112, and an assignment from PRINCETON LIGHTWAVE, INC. to TRUMPF PHOTONICS, recorded at Reel 13515, Frame 0533, (copy enclosed), hereby assents to the accompanying reissue application, and hereby offers to surrender U.S. Patent No. 5,818,860 and further requests that Letters Patent be reissued to it upon the foregoing amended application.

Trumpf Photonics, Inc.

Title: Vice President & General Manager

CORRECTED

14564 (00100)

APRIL 29, 2003

FISH & RICHARDSON P.C. JAMES W. BABINEAU 225 FRANKLIN STREET BOSTON, MA 02110-2804

Under Secretary of Commerce For Intellectual Property and Dinction Telunited States Patent and Trademark Office Washington, DC 20231 www.uspto.gov

MAY 0 5 2003

fish & Richardson, P.C. BOSTON OFFICE

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 11/20/2002

REEL/FRAME: 013515/0533

NUMBER OF PAGES: 12

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

PRINCETON LIGHTWAVE, INC.

DOC DATE: 07/18/2002

ASSIGNEE:

TRUMPF PHOTONICS, INC. 2601 U.S. RTE. 130 S CRANBURY, NEW JERSEY 08512

SERIAL NUMBER: 60133393

FILING DATE: 05/10/1999

ISSUE DATE:

PATENT NUMBER:

SERIAL NUMBER: 09468396

FILING DATE: 12/20/1999

PATENT NUMBER: 6556611

ISSUE DATE: 04/29/2003

SERIAL NUMBER: 09546086

FILING DATE: 04/10/2000

PATENT NUMBER: 6459715

ISSUE DATE: 10/01/2002

SERIAL NUMBER: 60089454

FILING DATE: 06/16/1998

PATENT NUMBER:

ISSUE DATE:

* No Docketing

Reviewed By Practs

Initials

.013515/0533 PAGE 2

SERIAL NUMBER: 60132791

PATENT NUMBER:

SERIAL NUMBER: 09566276

PATENT NUMBER:

SERIAL NUMBER: 60164864

PATENT NUMBER:

SERIAL NUMBER: 09710362

PATENT NUMBER:

SERIAL NUMBER: 60129810

PATENT NUMBER:

SERIAL NUMBER: 60161213

PATENT NUMBER:

SERIAL NUMBER: 09571970

PATENT NUMBER:

SERIAL NUMBER: 06176909

PATENT NUMBER: 4394938

SERIAL NUMBER: 09553551

PATENT NUMBER:

SERIAL NUMBER: 60176913

PATENT NUMBER:

SERIAL NUMBER: 09585032

PATENT NUMBER:

SERIAL NUMBER: 60176915

PATENT NUMBER:

SERIAL NUMBER: 60185133

PATENT NUMBER:

SERIAL NUMBER:

PATENT NUMBER:

PCT NUMBER: US9613820

SERIAL NUMBER:

PATENT NUMBER:

PCT NUMBER: US0012600

SERIAL NUMBER:

PATENT NUMBER:

PCT NUMBER: US0012708

SERIAL NUMBER:

PATENT NUMBER:

PCT NUMBER: US9913568

FILING DATE: 05/06/1999

ISSUE DATE:

FILING DATE: 05/05/2000

ISSUE DATE:

FILING DATE: 11/12/1999

ISSUE DATE:

FILING DATE: 11/10/2000

ISSUE DATE:

FILING DATE: 04/16/1999

ISSUE DATE:

FILING DATE: 10/22/1999

TSSUE DATE:

FILING DATE: 05/16/2000

ISSUE DATE:

FILING DATE: 08/11/1980

ISSUE DATE: 07/26/1983

FILING DATE: 04/20/2000

ISSUE DATE:

FILING DATE: 01/20/2000

ISSUE DATE:

FILING DATE: 06/01/2000

ISSUE DATE:

FILING DATE: 01/20/2000

ISSUE DATE:

FILING DATE: 02/25/2000

ISSUE DATE:

FILING DATE:

ISSUE DATE:

FILING DATE:

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FILING DATE:

ISSUE DATE:

FILING DATE:

ISSUE DATE:

.013515/0533 PAGE 3

SERIAL NUMBER:

PATENT NUMBER: PCT NUMBER: US0012635

SERIAL NUMBER: PATENT NUMBER:

PCT NUMBER: US0031048

SERIAL NUMBER:

PATENT NUMBER:

PCT NUMBER: US0010294

SERIAL NUMBER: PATENT NUMBER:

PCT NUMBER: US0041425

SERIAL NUMBER: PATENT NUMBER:

PCT NUMBER: US0041417

SERIAL NUMBER:

PATENT NUMBER:

PCT NUMBER: US0101971

SERIAL NUMBER:

PATENT NUMBER:

PCT NUMBER: US0101970

SERIAL NUMBER: 10181467

PATENT NUMBER:

PCT NUMBER: US0102019

SERIAL NUMBER: 10220897

PATENT NUMBER:

PCT NUMBER: US0106039

SERIAL NUMBER: 09571211

PATENT NUMBER: 6363188

SERIAL NUMBER: 09430643

PATENT NUMBER: 6301279

SERIAL NUMBER: 09158847

PATENT NUMBER: 6339606

SERIAL NUMBER: 08946180

PATENT NUMBER: 6034380

SERIAL NUMBER: 08524956

PATENT NUMBER: 5619523

SERIAL NUMBER: 08757883

PATENT NUMBER: 5818860

FILING DATE:

ISSUE DATE:

FILING DATE: 11/18/2002

ISSUE DATE:

FILING DATE:

ISSUE DATE:

FILING DATE: 05/16/2000

ISSUE DATE: 03/26/2002

FILING DATE: 10/29/1999

ISSUE DATE: 10/09/2001

FILING DATE: 09/23/1998

ISSUE DATE: 01/15/2002

FILING DATE: 10/07/1997

ISSUE DATE: 03/07/2000

FILING DATE: 09/08/1995

ISSUE DATE: 04/08/1997

FILING DATE: 11/27/1996

ISSUE DATE: 10/06/1998

·013515/0533 PAGE 4

SERIAL NUMBER: 07632263 PATENT NUMBER: 5131001

FILING DATE: 12/21/1990 ISSUE DATE: 07/14/1992

MAURICE CARTER, PARALEGAL ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

Substitute Form PTO-1595 Attorney Docket No.: 14564-00 001



1. Name of conveying party(ies): Princeton Lightwave, Inc.	Name and address of receiving party(ies): Trumpf Photonics Inc. 2601 U.S. Rte. 130 S
3. Nature of conveyance:	Cranbury, NJ 08512
Execution Date: July 18, 2002	Additional names/addresses attached? ☐ Yes ☑ No
4. Application number(s) or patent number(s):	-
If this document is being filed with a new application, the executi A. Patent Application No(s).: See Attached List	B: Patent No(s).: See Attached List
Additional numbers	s attached? ☑ Yes ☐ No
5. Name/address of party to whom correspondence concerning document should be mailed:	6. Total number of applications/patents involved: 47
JAMES W. BABINEAU Fish & Richardson P.C. 225 Franklin Street Boston, Massachusetts 02110-2804	7. Total fee (37 CFR §3.41): \$1,480.00 ☑ Enclosed ☐ Authorized to charge Deposit Account. 8. Deposit Account No.: 06-1050 Please apply any additional charges, or any credits, to our Deposit Account No. 06-1050.
DO NOT U	SE THIS SPACE
9. Statement and Signature: To the best of my knowledge at any attached copy is a true copy of the original documed James W. Babineau Reg. No. 42,276 Name of Person Signing Signature	
То	tal number of pages including coversheet, attachments and documents
20540887.doc	
DOZ JJR1LRX2 00000025 07632263	

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner of Patents, Washington, D.C. 20231.

November 14, 2002 Amy Amy Date of Deposit Signature

Typed Name of Person Signing Certificate

LIST OF PATENTS AND PATENT APPLICATIONS ASSIGNED FROM PLI TO TRUMPF PHOTONICS

TITLE	SARNOFF CASE NO.	INVENTOR(S)	APPLICATION NUMBER	FILING DATE	PATENT OR PUBL. NO.	ISSUE	ORIGIN	
Monolithic Semiconductor Light Emitter and Amplifier	10579	Carlson	07/632,263	12/21/1990	5,131,001	7/14/1992	Sn	002001
High Power Semiconductor Laser Diode	11611	Abeles Connolly Garbuzov	08/757,883	11/27/1996	5,818,860	10/6/1998	US	100,900
Semiconductor Distributed Feedback Laser Diode	11698	Abeles Connolly Morris	08/524,956	9/8/1996	5,619,523	4/8/1997	Sn	007001
Semiconductor Distributed Feedback Laser Diode	11698	Abeles Connolly Morris	PCT/US96/13820	9/9/1996	WO 97/09760		WO/ PCT	OOTWOI DONIT HAVE V FILE
Electroluminescent Diode with Mode Expander	11961	Alphonse Andrews Menna	08/946,180	10/7/1997	6,034,380	3/7/2000		100,00
Wide Stripe Distributed Bragg Reflector Lasers with Improved Angular and Spectral	12709	Connolly DiMarco Garbuzov	60/133,393	5/10/1999			US	108 800°
Characteristics		Nualin	09/468,396	12/20/1999				0080011
Wide Stripe Distributed Bragg Reflector Lasers with Improved Angular and Spectral Characteristics	12709	Connolly DiMarco Garbuzov Khalfin	PCT/US00/12600	5/10/2000	WO 00/72409		WO/ PCT	008moi

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CONTINUATION OF ITEM 4

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OF ITEM 4	ORIGIN	SN	WO/ PCT	ns		WO/ PCT	NS		WO/	SN	
CONTINUATION OF ITEM	ISSUE DATE				1/15/2002						
CON	PATENT OR PUBL. NO:		WO 00/72450		6,339,606	WO 99/66613			WO 00/68720		,
	FILING	4/10/2000	5/10/2000	6/16/1998	9/23/1998	6/16/1999	5/6/1999	5/5/2000	5/8/2000	11/12/1999	11/10/2000
	APPLICATION NUMBER	09/546,086	PCT/US00/12708	60/089,454	09/158,847	PCT/US99/13568	60/132,791	09/566,276	PCT/US00/12635	60/164,864	09/710,362
	INVENTOR(S)	Connolly DiMarco Garbuzov Khalfin	Connolly DiMarco Garbuzov Khalfin	Alphonse		Alphonse	Burstyn Shapiro Riddle	Lurie	Burstyn	Connolly DiMarco	
	SARNOFF CASE NO.	12709A	12709A	12797		12797	12977		12977	13206	
	TITLE	Master Oscillator Granting Coupled Power Amplifier with Angled Amplifier Section	Master Oscillator Granting Coupled Power Amplifier with Angled Amplifier Section	High Power Semiconductor)	High Power Semiconductor Light Source	Mode Matching in Super Luminescent Diode Cavities	Phase Conjugating Structure for Mode Matching in Super Luminescent Diode Cavities	Phase Conjugating Structure for Mode Matching in Super Luminescent Diode Cavities	Method for Controlling Current Spreading in Semiconductor Laser Diodes	

v:

CONTINUATION OF ITEM 4

						CON	CONTINUATION OF ITEM 4	FITEM 4	· · · · · · · · · · · · · · · · · · ·
	TITLE	SARNOFF CASE NO.	INVENTOR(S)	APPLICATION NUMBER	FILING	PATENT OR PUBL. NO.	ISSUE	ORIGIN	
	Control of Current Spreading in Semiconductor Laser Diodes	13206	Connolly DiMarco	PCT/US00/31048	11/10/2000	WO 01/35506		WO/ PCT	OUWOI V
	Semiconductor Diode Lasers with Thermal Sensor Control of the Active Region Temperature	13505	Garbuzov Maiorov Khalfin	60/129,810	4/16/1999			Sn	012 V don t heve
9			Connolly	09/430,643	10/29/1999	6,301,279	10/9/2001		012001
	Semiconductor Diode Lasers with Thermal Sensor Control of the Active Region Temperature	13505	Garbuzov Maiorov Khalfin Connolly	PCT/US00/10294	4/17/2000	WO 00/65699		WO/	012W0 \
	Integrated High Power Semiconductor Laser	13764	Alphonse	60/161,213	10/22/1999			NS	013 y V dont V
				09/571,970	5/16/2000				0130011
	Integrated High Power Semiconductor Laser	13764	Alphonse	PCT/US00/41425	10/23/2000	WO 01/39341		WO/ PCT	013W01V
, t	Mode Expander with Co- Directional Grating	13764A	Alphonse	09/571,211	5/16/2000	6,363,188	3/26/2002	Sn	100h10
•	Mode Expander with Co- Directional Grating	13764A	Alphonse	PCT/US00/41417	10/23/2000	WO 01/29590		WO/ PCT	10mhi0
	Semiconductor Diode Lasers with Improved Beam Divergence	13858	Garbuzov Khalfin	60/176,909	1/20/2000			SN	015Po1V
			Connolly	09/553,551	4/20/2000				100510
	Semiconductor Diode Lasers with Improved Beam Divergence	13858	Garbuzov Khalfin Connolly	PCT/US01/01971	1/19/2001	WO 01/57974		WO/ PCT	OISWOI

CONTINUATION OF ITEM 4

TITLE	SARNOFF CASE NO.	INVENTOR(S)	APPLICATION NUMBÉR	FILING	PATENT OR PUBL. NO.	ISSUE	ORIGIN	
High-Power Single Mode Semiconductor	13860	Garbuzov Khalfin	60/176,913	1/20/2000			NS	016801
Laser Diode			09/585,032	6/1/2000				
High-Power Single Mode Semiconductor Laser Diode	13860	Garbuzov Khalfin	PCT/US01/01970	1/19/2001	WO 01/57973		WO/ PCT	,016W01
Channelizer Switch; High Power Distributed Feedback Ridge Waveguide Laser; Resonant Enhanced Modulator (REM)	13869; 13870; 13871	Abeles	60/176,915	1/20/2000			US	14001v
High Power Distributed Feedback Ridge Waveguide Laser	13870	Abeles	PCT/US01/02019	1/22/2001	WO 01/54240		WO/ PCT	017W01
Double-Pass High Power Superluminescent Diode (SLD) And Optical Amplifier With Mode Stabilization	13922	Abeles	60/185,133	2/25/2000			US	0189014
Multi-Pass, Arcuate Bent Waveguide, High Power Superluminescent Diode	13922	Abeles	PCT/US01/06039	2/23/2001	WO 01/63331		WO/ PCT	, 018W0

EXHIBIT B

ASSIGNMENT

WHEREAS, Princeton Lightwave, Inc. ASSIGNOR, a Delaware corporation, is the owner of the entire right, title, and interest in the patents and patent applications listed on Schedule I attached hereto (collectively referred to as the "Previously Assigned Patents and Patent Applications"), subject to the May 2000 License Agreement (as defined below);

WHEREAS, The Sarnoff Corporation, a Delaware corporation ("Sarnoff Delaware"), and ASSIGNOR, pursuant to a TECHNOLOGY AND PATENT LICENSE AGREEMENT executed by Sarnoff New Jersey and ASSIGNOR and dated May 5, 2000 and an AMENDMENT TO TECHNOLOGY AND PATENT LICENSE AGREEMENT executed by Sarnoff New Jersey and ASSIGNOR and dated July 18, 2002 (collectively the "May 2000 License Agreement"), previously entered into assignments of the Previously Assigned Patents and Patent Applications;

WHEREAS, Sarnoff Corporation, a New Jersey corporation ("Sarnoff New Jersey"), possessed a legal interest in the Previously Assigned Patents and Patent Applications;

WHEREAS, the parties intend to ensure the proper assignment of the Previously Assigned Patents and Patent Applications such that Trumpf Photonics, Inc., ASSIGNEE, a Delaware corporation, may acquire the entire right, title, and interest in, to and under the Previously Assigned Patents and Patent Applications;

WHEREAS, in order to ensure such proper assignment, by separate written agreement Sarnoff New Jersey assigned to ASSIGNOR the entire, right, title, and interest in, to and under the Previously Assigned Patents and Patent Applications, subject to the May 2000 License Agreement;

WHEREAS, ASSIGNEE is desirous of obtaining the entire right, title and interest in, to and under the Previously Assigned Patents and Patent Applications, subject to the May 2000 License Agreement;

AND WHEREAS, it is desired that the assignment of these Previously Assigned Patents and Patent Applications be made a matter of record in the appropriate domestic and international patent offices;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, PLI hereby assigns and transfers unto Trumpf and its successors and assigns, the entire right, title and interest in and to the Previously Assigned Patents and Patent Applications (including the inventions disclosed therein and any divisions, continuations, reissues, reexaminations, extensions or foreign counterparts thereof) together with all rights of action and recovery for past infringement thereof, subject to the May 2000 License Agreement;

AND ASSIGNOR HEREBY authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR HEREBY further covenants and agrees that ASSIGNOR shall execute and deliver such documents and take such actions, at ASSIGNEE's expense, as are reasonably necessary or appropriate to effect this assignment of the Previously Assigned Patents and Patent Applications.

[PAGE BELOW INTENTIONALLY LEFT BLANK, SIGNATURE PAGE TO FOLLOW]

IN TESTIMONY WHEREOF, each party has caused its authorized representative to execute this Assignment (Exhibit B) as of ১৬২৭ (the "Effective Date").

PRINC	ETON LIGHTWAVE, INC.	TRUMPF PHOTONICS, INC.
Вү	Cetann	BY
Name	Didier Le Lannic	Name
Title	President and Chief	Title
11110	Executive Officer	

[SIGNATURE PAGE TO EXHIBIT B -ASSIGNMENT AND COVENANT NOT TO SUE AGREEMENT]

IN TESTIMONY WHEREOF, each party has caused its authorized representative to execute this Assignment (Exhibit B) as of 3002 (the "Effective Date").

PRINCETON LIGHTWAVE, INC.	TRUMPI	F PHOTONICS, INC.
BY	BY _	Ver tuf
Name	Name P	Peter Leibinger
Title	Title P	President

[SIGNATURE PAGE TO EXHIBIT B -ASSIGNMENT AND COVENANT NOT TO SUE AGREEMENT]

SCHEDULE 1 TO EXHIBIT B OF ASSIGNMENT AND COVENANT NOT TO SUE AGREEMENT (Previously Assigned Patents and Patent Applications)

TITLE	INVENTORS	PATENT OR PUB NO.	APPLICATION NO.	FILING DATE	ISSUE DATE	PLI CASE NO.
Monolithic Semiconductor Light Emitter and Amplifier	Carlson	US 5,131,001	07/632,263	12/21/1990	7/14/1992	10579
High Power Semiconductor	Abeles,	US 5,818,860	08/757,883	11/27/1996	10/6/1998	11611
Laser Diode	Connolly, Garbuzov	JP 10-303500	9-363805	11/27/1997		
Semiconductor Distributed	Abeles,	US 5,619,523	08/524,956	9/8/1995	4/8/1997	11698
Feedback Laser Diode	Connolly, Morris	WO 97/09760	PCT/US96/13820	9/9/1996		110/0
Electroluminescent with Diode Mode Expander		US 6,034,380	08/946,180	10/7/1997	3/7/2000	11961
Electroluminescent with Diode Mode Expander	Alphonse, Andrews, Menna	CA 2245399	2245399	8/20/1998		11961 CA
Semiconductor Diode	Andrews, Meilia	EP 908959	98307504.5	9/16/1998		11961 EP
Electroluminescent with Diode Mode Expander		JP 11-214745	10-285363	10/7/1998		11961 ЛР
		US Prov	: 60/133,393	5/10/1999	NA	
Wide Stripe Distributed Bragg Reflector Lasers with	Connolly, DiMarco,	US App	09/468,396	12/20/1999		12709
Improved Angular and Spectral Characteristics	Garbuzov, Khalfin	AU 7049800	200070498	5/10/2000		
Spectral Characteristics	Kilalilii	WO 00/72409	PCT/US00/12600	5/10/2000		12709
Master Oscillator Granting	Connolly,	US App	09/546,086	4/10/2000	Allowed	12709A
Coupled Power Amplifier with Angled Amplifier	DiMarco, Garbuzov,	AU 7049900	200070499	5/10/2000		
Section Section	Khalfin	WO 00/72450	PCT/US00/12708	5/10/2000		12709A
		US Prov	60/089,454	6/16/1998	NA	
1		US 6,339,606	09/158,847	9/23/1998	1/15/2002	12797
High Power Semiconductor	Alphonse	EP 1121720	99928706.3	6/16/1999		12797 EP
Light Source		JР	2000-555342	6/16/1999		12797 ЈР
		WO 99/66613	PCT/US99/13568	6/16/1999		12797 PCT

- • TITLE	INVENTORS	PATENT OR PUB NO.	APPLICATION NO.	FILING DATE	ISSUE DATE	PLI CASE NO.
Mode Matching in Super Luminescent Diode Cavities	Burstyn, Shapiro, Riddle, Lurie	US Prov	60/132,791	5/6/1999	NA	12977
Phase Conjugating Structure	Burstyn [Shapiro, Riddle, Lurie]	US App	09/566,276	5/5/2000		12977
for Mode Matching in Super Luminescent Diode Cavities	Burstyn	AU 4831200	200048312	5/8/2000		
	Burstyn	WO 00/68720	PCT/US00/12635	5/8/2000		12977 PCT
Method for Controlling		US Prov	60/164,864	11/12/1999	NA	
Current Spreading in Semiconductor Laser Diodes	Connolly,	US App	09/710,362	11/10/2000		13206
Control of Current Spreading	DiMarco	AU 1762601	200117626	11/10/2000]
in Semiconductor Laser Diodes		WO 01/35506	PCT/US00/31048	11/10/2000	-	
·		US Prov	60/129810	4/16/99		
		US 6,301,279	09/430,643	10/29/1999	10/9/2001	13505
Semiconductor Diode Lasers with Thermal Sensor Control of the Active Region Temperature		AU 6888000	200068880	4/17/2000		
	Garbuzov,	CA	2370788	4/17/2000		13505 CA
	Maiorov, Khalfin, Connolly	EP	00957229.8	4/17/2000		13505 EP
Temperature	Connolly	EP 1173907		4/17/2000		
		WO 00/65699	PCT/US00/10294	4/17/2000		13505 PCT
		US Prov	60/161,213	10/22/1999	NA	13764
		US App	09/571,970	5/16/2000		13764
Integrated High Power	A1-1	AU 4503301	200145033	10/23/2000		
Semiconductor Laser	Alphonse	TW	89122242	10/23/2000		13764 TW
		WO 01/39341	PCT/US00/41425	10/23/2000		13764 PCT
		US 6,363,188	09/571,211	5/16/2000	3/26/2002	13764A
		AU 2299201	200122992	10/23/2000		
Mode Expander with Co- Directional Grating	Alphonse	TW	89122242	10/23/2000		13764A TW
		WO 01/29590	PCT/US00/41417	10/23/2000		13764A PCT
Semiconductor Diode Lasers	Garbuzov,	US Prov	60/176,909	1/20/2000	NA	
with Improved Beam	Khalfin,	US App	09/553,551	4/20/2000		13858

TITLE	INVENTORS	PATENT OR PUB NO.	APPLICATION NO.	FILING DATE	ISSUE DATE	PLI CASE NO.
Divergence	Connolly	WO 01/57974	PCT/US01/01971	1/19/2001		13858 PCT
		US Prov	60/176,913	1/20/2000	NA	
High-Power Single Mode Semiconductor Laser Diode	Garbuzov, Khalfin	US App	09/585,032	6/1/2000		13860
		WO 01/57973	PCT/US01/01970	1/19/2001		
Channelizer Switch**		US Prov	60/176,915	1/20/2000	NA	13869
High Power Distributed	Abeles	AU 4719201	200147192	1/22/2001		13870
Feedback Ridge Waveguide Laser		WO 01/54240	PCT/US01/02019	1/22/2001		13070
Double-Pass High Power Superluminescent Diode (SLD) And Optical Amplifier with Mode Stabilization	Alphonse	US Prov	60/185,133	2/25/2000	NA	13922
Multi-Pass, Arcuate Bent Waveguide, High Power Superluminescent Diode		WO 01/63331	PCT/US01/06039	2/23/2001		13922

^{**}Inventions in this provisional will be assigned only to the extent that Case No. 13870 claims priority of an invention in the provisional.